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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/956,897	09/21/2001	Young-Jun Kwon	P67158US0	2416

136 7590 03/26/2004

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EXAMINER

SPISICH, MARK

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/956,897

Applicant(s)

KWON, YOUNG-JUN

Examiner

Mark Spisich

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings were received on 21 January 2004. These drawings are approved.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baumgartner (USP 2,558,334) in view of Cansler (USP 5,786,087). The patent to Baumgartner discloses a brush comprising a plurality of synthetic bristles (11) "each having a diameter of the order of four-thousandths of an inch and having pointed ends with a taper of approximately 15 to 1" (column 1, line 54 thru column 2, line 2 and fig 5) and having a length of about 9/16 inch (column 3, lines 12-15). Although a longer taper is preferred, Baumgartner also discloses that the length of the taper of 8 to 1 have been found satisfactory for a lacquer brush (column 3, lines 70-72). With a "taper length" as defined by Baumgartner (column 3, lines 67-70), (15 times as great as the diameter of the bristles), the taper would start **about 1.5mm** (claims 1 and 3) from the end thereof (15x.004x25.4). As Baumgartner states that the bristles (11) taper to a point, it would have been obvious to one of ordinary skill to have made the tip as narrow as claimed (.02mm in claim 1 and .01mm in claim 2). The recitation of "toothbrush" fails to define over the structure of the prior art and pertains only to the intended use thereof. The

Art Unit: 1744

patent to Baumgartner discloses the invention substantially as claimed with the exception of the recited materials, although it suggests that various synthetic materials could be used (column 3, lines 18-24). The patent to Cansler discloses the use of PBT as a bristle material (column 4, lines 39) in a brush of similar utility as Baumgartner and which also suggests the equivalence of nylon and PBT. It would have been obvious to one of ordinary skill to have modified the bristles of Baumgartner as such since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Response to Arguments

3. Applicant's arguments filed 21 January 2004 have been fully considered but they are not persuasive. Applicant's first (as well as the last) comment pertains to the fact that the present invention is related to toothbrushes. The prior art, namely Baumgartner (USP 2,558,334), discloses a brush provided with a plurality of tapered bristles (21).

The recitation of "toothbrush" in the preamble relates merely to a future intended use and fails to structurally define the claim(s) over that of the prior art. With a bristle diameter of .004 inch (column 3, line 14) and a taper length of 15 to 1 (15 times the diameter of the bristles as defined at column 3, line 67-70), the length of the taper (of the bristles shown in fig 5) would be approximately 1.5 mm (15x.004x25.4). Claim 1 recites that the taper starts at a position of **3.5 mm or less** from an end thereof and claim 3 further states that the taper starts **3.0 mm or less** from the end of the bristle. A taper length of 1.55 mm (which is less than 3.0 mm) as taught by Baumgartner meets this

Art Unit: 1744

limitation. Applicant, in the "remarks", mentions the diameter of the bristles of the present invention; however, it is noted that the claim(s) do not specify any particular diameter. Applicant also compares the prior art taper length of 0.1 to 1.5 mm from the ends thereof to a length of 2.8-3.5 mm in the present invention. Applicant's attention is drawn to claims 1 and 3, which recite that the taper begins 3.5 (and 3.0 in claim 3) mm **OR LESS** from the end of the bristles. The claims never include a mention of the particular range (2.8 to 3.5 mm) mentioned in the "remarks". The patent to Baumgartner recites that the bristles "taper to a **point**" (column 3, lines 69-70) and as such would reasonably suggest to one of ordinary skill that the diameter at the free ends of bristles is negligible and that the free end diameters of claims 1 and 2 are at least obvious variants of the basic teaching of Baumgartner. The patent to Cansler (USP 5,786,087) has been used to provide a teaching of using PBT as a bristle material (column 4, line 39) in a brush of similar utility as Baumgartner and further in that it suggests the equivalence of nylon (which is the preferred material of Baumgartner) and PBT. The patent to Cansler is relied on solely for a teaching of the use of the claimed bristle material and the prior art provides motivation to combine the teachings of Baumgartner and Cansler (see column 3, lines 18-24 of Baumgartner and column 4, lines 35-40 of Cansler).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Spisich whose telephone number is (571) 272-1278. The examiner can normally be reached on M-Th (6-3:30), Alternate Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Mark Spisich
Primary Examiner
Art Unit 1744

MS